AERODIGEST 2023

swallowing innovations lab

LOCATION:LIFE SCIENCES CENTRE (LSC 1003 LTC) - 2350 HEALTH SCIENCES MALL

DATE: OCTOBER 14-15, 2023

TIME: OCTOBER 14 (8:45 AM - 6:00 PM PST)
OCTOBER 15 (8:00 AM - 6:00 PM PST)

OCTOBER 14

8:30 AM - 8:45 AM

Registration

8:45 AM - 9:00 AM

Welcome and Introductions

9:00 AM - 10:00 AM

Evolution and Comparative Anatomy of Valving Systems in the Aerodigestive Tract

Dr. Wayne Vogl

The lower airway develops as, and has evolved from, an outgrowth of the 'gut tube'. The conversion from water to air breathing was key to development of the first valving systems functionally separating the 'airway' from the 'digestive tract'. A complete hard palate, a soft palate, and expanded upper airway (nasal cavities) are predominantly mammalian features and are associated with food handling, suckling, endothermy and increased olfaction. In mammals that are fully aquatic, periodic breathing, the appearance of novel feeding mechanisms, and submerging to depth have resulted in major modifications to valving systems in the aerodigestive tract.

10:15 AM - 11:35 AM

More than one way to take a breath: Comparative structure and function of the vertebrate pulmonary system

Dr. Robert Cieri

Although breathing comes naturally to us, ventilation in vertebrates has a long and complex evolutionary story. Ribs were originally part of the locomotor system in fish. When did they gain responsibility for ventilation - how did animals start to suck? When humans breathe, our lungs expand and contract and air flows to-and-fro through our bifurcating airway tree. Birds have a radically different system, where air moves unidirectionally through parallel tubes, pumped constantly by extra pulmonary air-sacs. What led us on a different evolutionary trajectory form our featured friends, and what can we learn from lizards? Cetaceans (whales and dolphins) take the mammalian system to the limit, exchanging huge quantities of air during short surface intervals. How are the lungs of these huge animals different, and what can that tell us about our own breathing?

1:15 PM - 3:30 PM

Dysphagia and Frailty: What Do We Know?

Dr. Rebecca Affoo

Dysphagia prevalence tends to increase with advancing age, and many consider dysphagia to be a geriatric syndrome. Increased risk of adverse health outcomes, including dysphagia, is not necessarily a consequence of aging. Some older adults are at greater risk of experiencing poor health outcomes compared with similar aged peers. Reduced functional reserve associated with frailty, a condition marked by cumulative decline across several physiological systems, can increase one's vulnerability to even minor perturbations in health status. Significant association have been identified between dysphagia and frailty. This session will provide a review of the evidence exploring dysphagia and frailty as well as some considerations and recommendations for future research and clinical practice.

3:45 PM - 5:55 PM

Ethical Decision Making in Healthcare

Dr. Moji Adurogbangba

Creating a space for patients to articulate their preferences while providing care enhances the patient care experience while equipping clinicians with crucially important cues at treatments that maximally benefit patients. My presentation offers an ethical approach to impacting patient care. I will clarify the role of healthcare professionals in the decision-making process for medical care and discuss the ethical standards that healthcare professionals should address in practice, including considering a patient's ability to participate in their medical care even when intubated and have lost their voice.

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Coordination of Swallowing with Respiration: Impact on Swallowing Physiology, Airway Protection, and Rehabilitation

Dr. Bonnie Martin-Harris

The respiratory phase and lung volume range at swallowing initiation directly impact swallowing biomechanics, safety, and bolus clearance. As such, swallowing function in patients with dysphagia may be improved through learning to recalibrate respiratory-swallowing coordination. This presentation will discuss visually-guided feedback during respiratory-swallow training (RST), which is found to enhance motor learning and durability of treatment effect.

10:30 AM - 11:45 AM

Rapid Research Presentations

Join us for an opportunity to hear about the latest investigations in aerodigestive tract research. We are hosting rapid research talks where research trainees will share their study protocols, progress updates and more!

1:00 PM - 2:15 PM

Airways and Lungs and Traches, Oh My! Using Evidence to Manage the Gray Areas

Dr. Jim Coyle

SLPs have been working with lungs and airways for a long time, despite little formal education in the entire respiratory system. Navigating advances in technology and growing knowledge outside of their sanctioned education, SLPs are expected to be on the front line managing upper airway disorders not as therapists, but as mid-level providers. This session will discuss the role of the SLP in mitigation of dysphagia-related pulmonary diseases, and is resolving the "high-flow oxygen delivery systems" controversy, to demonstrate how using bits and pieces of evidence can answer difficult questions.

2:15 PM - 3:15 PM

Swallowing Innovations Lab Research Updates

Dr. Stacey Skoretz

The Swallowing Innovations Lab at UBC was established in 2017. Our research program is focused on enhancing outcomes for critical illness survivors through the: exploration of integrative aerodigestive tract mechanisms in mammals; and advancement of aerodigestive tract training for highly qualified professionals. In this session, we will take a look back over the past six years and share with you our discoveries and an update on some of our ongoing work.

3:30 PM - 5:45 PM

Laryngeal Function Following Head and Neck Cancer Treatment: Thresholds and Trade-offs in a Shifting Paradigm / Covid 19: An Update for Speech and Language Pathologists

Dr. Camilla Dawson

Head and neck treatment involves trade-offs, these are person and context specific and require exploration and upfront discussion. Surgical alteration to the upper airway can result in a complex, non-linear recovery trajectory: the SLP is key and core to assessing, diagnosing and managing these challenges, informing and developing treatment options with the surgical and multidisciplinary teams. With regards to COVID-19 research, the past 3 years have altered and refocussed our individual and collective clinical goals. At this juncture it is key that clarity on the science of our rehabilitation and therefore our collective research goals are recognised and redefined together to gather momentum, achieving efficient and effective clinical progress.